

SEQUENCE LISTING

<110> YOKOZEKI, KENZO
SUZUKI, SONOKO
HARA, SEIICHI
ABE, ISAO

<120> METHOD FOR PRODUCING TRIPEPTIDES AND/OR PEPTIDES LONGER THAN
TRIPETIDES

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<150> PCT/JP03/09466

<151> 2003-07-25

<150> JP 2002-218958

<151> 2002-07-26

<160> 14

<170> PatentIn version 3.1

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Val Lys Lys Leu Thr Leu Lys Val Thr Leu Thr Leu Leu Gly	
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agt aca gtt gga ttt gcg caa gat gca aaa gca gat tct gct tat gtg	156
Ser Thr Val Gly Phe Ala Gln Asp Ala Lys Ala Asp Ser Ala Tyr Val	
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cgc gac aat tac gaa aaa ata gaa caa gta att ccg atg cgc gat ggt	204
Arg Asp Asn Tyr Glu Lys Ile Glu Gln Val Ile Pro Met Arg Asp Gly	
35 40 45	
aca aag tta ttt aca gct att tat cag cca aaa gat aaa aca aaa caa	252
Thr Lys Leu Phe Thr Ala Ile Tyr Gln Pro Lys Asp Lys Thr Lys Gln	
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Tyr Pro Val Leu Leu Asn Arg Thr Pro Tyr Thr Val Ala Pro Tyr Gly	
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Val Asn Glu Tyr Lys Lys Ser Leu Gly Asn Phe Pro Thr Glu Met Arg	
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Glu Gly Phe Ile Phe Val Tyr Gln Asp Val Arg Gly Lys Trp Met Ser	
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Glu Gly Glu Phe Glu Asp Val Arg Pro Ile Asn Pro Ser Lys Ser Lys	
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Pro	Ala	Val	Met	Thr	Val	Gly	Gly	Phe	Phe	Asp	Ala	Glu	Asp	Val	Tyr	
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Thr Ser Lys Asp Tyr Leu Lys Gln Thr Gln Arg Ile Tyr His Thr Ser	595	600	605	
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90

95

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Gly Asp Asp Phe His His Asn Gly Val Leu Phe Leu Asn Asp Ser Phe
 195 200 205

Ser Phe Met Thr Phe Phe Gly Val Lys Arg Pro Gln Pro Ile Thr Pro
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Asp Lys Gly Pro Lys Arg Phe Glu Tyr Pro Ile Lys Asp Asn Tyr Arg
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Met Lys Asn Thr Ile Ser Cys Leu Thr Leu Ala Leu Leu Ser Ala Ser
1 5 10 15

108

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Gln Leu His Ala Gln Thr Ala Ala Asp Ser Ala Tyr Val Arg Asp His
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156

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gta caa ttt tgg aat gac ctg ttt aag cat ccc gac tat gat gat ttt	876
Val Gln Phe Trp Asn Asp Leu Phe Lys His Pro Asp Tyr Asp Asp Phe	
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Trp Lys Ser Arg Val Ile Thr Asn Ser Leu Gln Glu Val Lys Pro Ala	
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aac ttt ctc aaa gtt tct tca aca gga aca gac gcg gac tat gtt gtc Asn Phe Leu Lys Val Ser Ser Thr Gly Thr Asp Ala Asp Tyr Val Val 485 490 495			1548
aaa ctg att gac gtt tat ccg aat gat gca gca agt tat caa gga aaa Lys Leu Ile Asp Val Tyr Pro Asn Asp Ala Ala Ser Tyr Gln Gly Lys 500 505 510			1596
aca atg gct gga tat caa atg atg gta cgt ggt gag atc atg gcg ggg Thr Met Ala Gly Tyr Gln Met Met Val Arg Gly Glu Ile Met Ala Gly 515 520 525			1644
aaa tac cga aat ggt ttc gat aaa gcg cag gcc ttg act cca ggt atg Lys Tyr Arg Asn Gly Phe Asp Lys Ala Gln Ala Leu Thr Pro Gly Met 530 535 540			1692
gtc gaa aag gtg aat ttt gaa atg cca gac gtt gcg cat acc ttc aaa Val Glu Lys Val Asn Phe Glu Met Pro Asp Val Ala His Thr Phe Lys 545 550 555 560			1740
aaa gga cat cgc att atg gtt cag gta caa aac tca tgg ttt ccg ctg Lys Gly His Arg Ile Met Val Gln Val Gln Asn Ser Trp Phe Pro Leu 565 570 575			1788
gca gaa cga aat cca cag gtg ttt tta gca cct tat aca gct acc aaa Ala Glu Arg Asn Pro Gln Val Phe Leu Ala Pro Tyr Thr Ala Thr Lys 580 585 590			1836
gct gat ttc cgc aaa gct acc caa cgt att ttt cac gat gtg aac aat Ala Asp Phe Arg Lys Ala Thr Gln Arg Ile Phe His Asp Val Asn Asn 595 600 605			1884
gcc aca tac atc gaa ttt tct gtc ctc aaa gat tagcaggtaa attcgaaa Ala Thr Tyr Ile Glu Phe Ser Val Leu Lys Asp 610 615			1935

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Met Lys Asn Thr Ile Ser Cys Leu Thr Leu Ala Leu Leu Ser Ala Ser
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Gln Leu His Ala Gln Thr Ala Ala Asp Ser Ala Tyr Val Arg Asp His
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Tyr Glu Lys Thr Glu Val Ala Ile Pro Met Arg Asp Gly Lys Lys Leu
35 40 45

Phe Thr Ala Ile Tyr Ser Pro Lys Asp Lys Ser Lys Lys Tyr Pro Val
50 55 60

Leu Leu Asn Arg Thr Pro Tyr Thr Val Ser Pro Tyr Gly Gln Asn Glu
65 70 75 80

Tyr Lys Lys Ser Leu Gly Asn Phe Pro Gln Met Met Arg Glu Gly Tyr
85 90 95

Ile Phe Val Tyr Gln Asp Val Arg Gly Lys Trp Met Ser Glu Gly Asp
100 105 110

Phe Glu Asp Ile Arg Pro Thr Thr Tyr Ser Lys Asp Lys Lys Ala Ile
115 120 125

Asp Glu Ser Thr Asp Thr Tyr Asp Ala Leu Glu Trp Leu Gln Lys Asn
130 135 140

Leu Lys Asn Tyr Asn Gly Lys Ala Gly Leu Tyr Gly Ile Ser Tyr Pro
145 150 155 160

Gly Phe Tyr Ser Thr Val Gly Leu Val Lys Thr His Pro Ser Leu Lys
165 170 175

Ala Val Ser Pro Gln Ala Pro Val Thr Asp Trp Tyr Ile Gly Asp Asp
180 185 190

Phe His His Asn Gly Val Leu Phe Leu Gln Asp Ala Phe Thr Phe Met
195 200 205

Ser Thr Phe Gly Val Pro Arg Pro Lys Pro Ile Thr Pro Asp Gln Phe
210 215 220

Lys Gly Lys Ile Gln Ile Lys Glu Ala Asp Lys Tyr Asn Phe Phe Ala
225 230 235 240

Glu Ala Gly Thr Ala Arg Glu Leu Lys Glu Lys Tyr Phe Gly Asp Ser
245 250 255

Val Gln Phe Trp Asn Asp Leu Phe Lys His Pro Asp Tyr Asp Asp Phe
260 265 270

Trp Lys Ser Arg Val Ile Thr Asn Ser Leu Gln Glu Val Lys Pro Ala
275 280 285

Val Met Val Val Gly Gly Phe Phe Asp Ala Glu Asp Ala Tyr Gly Thr
290 295 300

Phe Lys Thr Tyr Gln Ser Ile Glu Asp Lys Ser Lys Lys Asn Asn Ser
305 310 315 320

Ile Leu Val Ala Gly Pro Trp Tyr His Gly Gly Trp Val Arg Ala Glu
325 330 335

Gly Asn Tyr Leu Gly Asp Ile Gln Phe Glu Lys Lys Thr Ser Ile Thr
340 345 350

Tyr Gln Glu Gln Phe Glu Gln Pro Phe Phe Lys Tyr Tyr Leu Lys Asp
355 360 365

Glu Gly Asn Phe Ala Pro Ser Glu Ala Asn Ile Phe Val Ser Gly Ser
370 375 380

Asn Glu Trp Lys His Phe Glu Gln Trp Pro Pro Lys Asn Val Glu Thr
385 390 395 400

Lys Lys Leu Tyr Phe Gln Pro Gln Gly Lys Leu Gly Phe Asp Lys Val
405 410 415

Gln Arg Thr Asp Ser Trp Asp Glu Tyr Val Thr Asp Pro Asn Lys Pro
420 425 430

Val Pro His Gln Gly Gly Val Ile Gln Asn Arg Thr Arg Glu Tyr Met
435 440 445

Val Asp Asp Gln Arg Phe Ala Ala Ser Arg Pro Asp Val Met Val Tyr
450 455 460

Gln Thr Glu Pro Leu Thr Glu Asp Leu Thr Ile Val Gly Pro Ile Lys
465 470 475 480

Asn Phe Leu Lys Val Ser Ser Thr Gly Thr Asp Ala Asp Tyr Val Val
485 490 495

Lys Leu Ile Asp Val Tyr Pro Asn Asp Ala Ala Ser Tyr Gln Gly Lys
500 505 510

Thr Met Ala Gly Tyr Gln Met Met Val Arg Gly Glu Ile Met Ala Gly
515 520 525

Lys Tyr Arg Asn Gly Phe Asp Lys Ala Gln Ala Leu Thr Pro Gly Met
530 535 540

Val Glu Lys Val Asn Phe Glu Met Pro Asp Val Ala His Thr Phe Lys
545 550 555 560

Lys Gly His Arg Ile Met Val Gln Val Gln Asn Ser Trp Phe Pro Leu
565 570 575

Ala Glu Arg Asn Pro Gln Val Phe Leu Ala Pro Tyr Thr Ala Thr Lys
580 585 590

Ala Asp Phe Arg Lys Ala Thr Gln Arg Ile Phe His Asp Val Asn Asn
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Ala Thr Tyr Ile Glu Phe Ser Val Leu Lys Asp
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30

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29